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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,640	01/20/2004	Stephen R. Van Doren	200313588-1	9874

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EXAMINER

CHERY, MARDOCHEE

ART UNIT PAPER NUMBER

2188

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/760,640	Applicant(s) DOREN ET AL.	
	Examiner Mardochee Chery	Art Unit 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13 and 15-24 is/are rejected.
- 7) ☒ Claim(s) 10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's communication filed on July 3, 2006, in response to PTO Office Action mailed on April 19, 2006. The Applicant's remarks and amendments to the claims and/or the specification were considered with the results that follow.
2. In response to the last Office Action, claims 10, 11, 13, and 14 have been amended. Claims 1-24 remain pending.
3. The rejection of claims 8, 9, 13 and 14 under 35 USC 112 has been withdrawn due to the amendment filed on July 3, 2006.

Response to Arguments

4. Applicant's arguments, see remarks, filed July 3, 2006, with respect to the rejection(s) of claim(s) 1-24 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Glasco (2005/0251626) and Arimilli (6,138,218).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6, 9, 11-13, 15-21, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Glasco (2005/0251626).

As per claim 1, Glasco discloses a system comprising: a first node having an associated cache including data having an associated first cache state, the first cache state being capable of identifying the first node as being an ordering point for serializing requests from other nodes for the data [par. 45, ll 1-3; par. 87, ll 11-16; pars. 120-123].

As per claim 2, Glasco discloses the first cache state enables the first node to provide a data response to a request for the data from a second node for the data without updating a system memory [par. 131].

As per claim 3, Glasco discloses the first cache state enables the first node to provide an ownership data response to a request for the data from a second node, the

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ownership data response transferring the ordering point from the first node to the second node [pars. 89-90].

As per claim 4, Glasco discloses the first node provides the ownership data response without updating a system memory [par. 131].

As per claim 5, Glasco discloses the first node defines a first processor and the second node defines a second processor [Fig. 2], each of the first processor and the second processor having an associated cache [par. 3], ll 6-9], the associated caches of the first and second processors each comprising a plurality of cache lines [Abstract], each cache line having a respective tag address that identifies associated data and each cache line having state information that indicates a state of the associated data for the respective cache line [par. 59], the first and second processors being capable of communicating with each other and with other nodes of the system through an interconnect [Fig. 2, Switch 210].

As per claim 6, Glasco discloses a first cache controller associated with the first processor and a second cache controller associated with the second processor [Fig. 2, Controller 230], the first cache controller being operative to manage data requests and responses for the associated cache of the first processor [Abstract], the first cache controller effecting state transitions associated with the data in the associated cache of the first processor based on the data requests and responses for the associated cache

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of the first processor [par. 10], the second cache controller being operative to manage data requests and responses for the associated cache of the second processor [par. 12], the second cache controller effecting state transitions associated with the data in the associated cache of the second processor based on the data requests and responses for the associated cache of the second processor [par. 15].

As per claim 9, Glasco discloses the source broadcast protocol comprises an incomplete protocol [par. 4, ll 9-11].

As per claim 11, the rationale in the rejection of claim 1 is herein incorporated.

As per claim 12, the rationale in the rejection of claim 2 is herein incorporated.

As per claim 13, the rationale in the rejection of claim 3 is herein incorporated.

As per claim 15, the rationale in the rejection of claim 1 is herein incorporated.

As per claim 16, the rationale in the rejection of claim 1 is herein incorporated.

As per claim 17, the rationale in the rejection of claim 2 is herein incorporated.

As per claim 18, the rationale in the rejection of claim 3 is herein incorporated.

As per claim 19, the rationale in the rejection of claims 1 and 3 is herein incorporated.

As per claim 20, the rationale in the rejection of claim 2 is herein incorporated.

As per claim 21, the rationale in the rejection of claim 3 is herein incorporated.

As per claim 24, the rationale in the rejection of claim 1 is herein incorporated.

7. Claims 7, 8, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glasco (2005/0251626) in view of Arimilli (6,138,218).

As per claim 7, Glasco discloses the claimed invention as discussed above.

However, Glasco does not specifically teach a third node retries the source broadcast request employing a forward progress protocol as required.

Arimilli discloses a third node retries the source broadcast request employing a forward progress protocol [col. 1, ll 6-12] in order to allow other traffic to proceed and alleviate the prospect of a livelock (col. 1, ll 13-14).

Since the technology for implementing a system with a third node retries the

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source broadcast request employing a forward progress protocol was well known as evidenced by Arimilli, an artisan would have been motivated to implement this feature in the system of Glasco in order to allow other traffic to proceed and alleviate the prospect of a livelock. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention by Applicant, to modify the system of Glasco to include a third node retrying the source broadcast request employing a forward progress protocol since this would have allowed other traffic to proceed and alleviated the prospect of a livelock (col. 1, ll 13-14) as taught by Arimilli.

As per claim 8, Arimilli discloses the forward progress protocol comprises a null-directory protocol [col. 1, ll 6-12].

As per claims 22 and 23, the rationale in the rejection of claim 7 is herein incorporated.

Allowable Subject Matter

8. Claims 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mardochee Chery whose telephone number is (571) 272-4246. The examiner can normally be reached on 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Manonama Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 2, 2006


MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER


Mardochee Chery
Examiner
AU 2188